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ABSTRACT

Preliminary efforts to operationalize more fully the concept of the instructional conversation (IC) approach for second language learning are reported, and an observational tool, the IC Rating Scale, is described in an examination of classroom-based reading comprehension lessons. Preliminary data on the reliability and validity of the IC scale are presented, followed by sample transcripts of instructional conversations from actual reading comprehension lessons. Cautions and unresolved questions to be considered in using the scale are discussed, including: (1) although the IC scale is composed of a series of distinct elements, the unit of analysis must be the whole lesson and the interactional context in which the lesson activities are situated; (2) the elements do not represent steps or other top-down, teacher-proof prescriptions, but instead are components that characterize and contribute to the types of activity settings; and (3) the scale should not be seen as a finished product. Suggestions for future research are noted. Appendices describe the elements of instructional conversation and provide both the scoring sheet and the summary score sheet. Contains 13 references. (LB)

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EDUCATIONAL PRACTICE REPORT: 4

RATING INSTRUCTIONAL CONVERSATIONS: A GUIDE

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Rating Instructional Conversations: A Guide

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1992

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Rating Instructional Conversations: A Guide

Overview

The current focus on more effective ways to foster literacy in school-age children, especially language minority students, has led to the development of alternative instructional approaches. One such approach is the instructional conversation (IC), based on early work in the Hawaiian Kamehameha Elementary Education Project (KEEP), on neo-Vygotskian theory, and on recent classroom-based research on reading comprehension.

The present report outlines preliminary efforts to operationalize more fully the concept of the IC and describes an observational tool, the IC Rating Scale, to examine classroom-based reading comprehension lessons. Preliminary data on the reliability and validity of the IC scale are presented, followed by sample transcripts of instructional conversations from actual reading comprehension lessons. Cautions and unresolved questions to be considered in using the scale are discussed, and suggestions are made for further investigation.

Readers who are unfamiliar with the concept of instructional conversations and their use in the classroom may want to consult the following publications from the National Center for Research on Cultural Diversity and Second Language Learning (see page 25 for ordering information):

The Instructional Conversation: Teaching and Learning in Social Activity (Research Report No. 2) by Roland G. Tharp & Ronald Gallimore

Instructional Conversations and Their Classroom Application (Educational Practice Report No. 2) by Claude Goldenberg

Introduction

Instructional approaches are an increasingly important focus of many current efforts to promote literacy for low socioeconomic status (SES) language minority students. Some researchers have hypothesized that low educational outcomes for these students may derive, in part, from impoverished or low-level remedial instruction, often in the form of recitation teaching (Allington, 1990; Moll & Diaz, 1987; Tharp & Gallimore, 1989).

As Tharp and Gallimore (1989) and many others have noted, recitation instruction is characterized by highly routinized or scripted interaction. Discourse is teacher-dominated and focuses on decontextualized, discrete skills. Little attention is paid to students' active, spontaneous, collaborative attempts to construct meaning from text. In contrast, recent theory and research suggest the potential of responsive teaching, or *instructional conversations*, especially when carried out in culturally compatible activity settings (Goldenberg & Gallimore, 1990; Tharp, 1989; Tharp & Gallimore, 1989). These would include learning settings that are sensitive to the discourse and interactional norms found in students' homes and communities. We contend that instructional conversations in appropriate settings are especially useful for low SES minority children, who are particularly likely to experience low-level instruction (Allington, 1990). Further, we propose that instructional conversations (or ICs) are especially appropriate in ill-structured domains, such as reading comprehension, which are less suited to direct or explicit teaching (Goldenberg & Gallimore, 1991b).

To promote and facilitate the use of instructional conversations in classroom settings, the authors of this report have attempted to describe the characteristics of ICs in the context of classroom reading activities. We have operationalized these characteristics in the form of an observational tool: the *Instructional Conversation Rating Scale*.

The present guide is designed to accompany the *Instructional Conversation Rating Scale*, which may be used to estimate the extent to which a given lesson approximates an IC. It is meant to be used by researchers, teachers, and other educators who wish to examine more closely and systematically the processes involved in reading comprehension instruction and who wish to implement instructional conversations in classroom reading activities.

This paper is organized into several parts: (1) a brief description of the concept of the instructional conversation, (2) the IC rating scale with instructions and suggestions for scoring and recording, (3) preliminary data on the reliability and validity of the IC rating scale, (4) sample transcripts of instructional conversations from actual reading comprehension lessons, and (5) cautions and unresolved questions to be considered in using the scale.

The Instructional Conversation

The primary theoretical framework for the instructional conversation is found in sociocultural accounts of learning and development, in particular the neo-Vygotskian tradition (Rogoff & Lave, 1984; Vygotsky, 1978; Wertsch, 1985). The basic notion is that higher order cognitive activities (such as the ability to create meaning from text) are developed on the basis of interactions with more competent others. The notions of responsivity and of assisted performance are key elements of this orientation. In the context of the instructional conversation, responsivity is the constant monitoring of a student's current levels of understanding and deciding on the most meaningful next step. Assisted performance is assistance provided at a level above what the student can achieve independently. This level is referred to as the "zone of proximal development" (Vygotsky, 1978).

Instructional conversations are frequently seen outside of school. They are represented in the everyday talk between parents and children through which children acquire language. They are found in the various home activity settings through which many children begin to develop literacy, such as storybook time, reading the TV guide, sending birthday cards, or making a grocery list. In these settings, parents routinely engage in relatively high-level discussions with their children. Although they may occasionally extract from the child a "correct" answer, they assume that the child has something to say beyond the "known answers" in the head of the adult. To grasp the communicative intent of the child, the parents listen carefully, make guesses about the meaning of the intended communication (based on the context and on knowledge of the child's interests and experiences), and adjust their responses to assist the child's efforts. In short, through the instructional conversation, parents spur the child on and support the child's understanding and participation in the activity.

Thinking About and Planning for ICs in the Classroom

As common as instructional conversations are in the interactions of parents and children in activities such as learning how to eat or speak, they are uncommon in most classrooms. Teachers cannot rely on lay skills that are sufficient for parental socialization of offspring. They need a more elaborate set of skills, and they need to be conscious of their application.

Fortunately, there is evidence that the art of the instructional conversation can be fostered (Goldenberg & Gallimore, 1991b; Tharp & Gallimore, 1989). However, the acquisition of these pedagogical skills depends on learning experiences that few teachers encounter: a comprehensive conceptual framework in conjunction with the opportunity to observe effective practitioners; opportunities to practice and to receive feedback; and access to the competent coaching of a skilled consultant. Teachers themselves must have their performance assisted if they are to acquire the ability to

assist the performance of their students. In addition, efforts to foster instructional conversations require a well formulated theoretical framework and preferably a set of indicators (a standard) that can be used to examine the specific behaviors of teachers and students as well as the overall global character of a given lesson.

In implementing instructional conversations, teachers discover that they do not know all that a student knows—they must inquire about it, and they must listen. A good instructional conversation appears, on the surface, as "nothing more than" an excellent discussion conducted by a teacher (or someone relatively more knowledgeable or skilled) and a group of students (or individuals relatively less knowledgeable or skilled). It is, in the first place, interesting and engaging. It has a coherent focus which, although it might shift as the discussion evolves, remains discernible throughout. There is a high level of participation without undue domination by any one individual, particularly the teacher. Students engage in extended discussions with the teacher and among themselves, exploring ideas and thoughts in depth.

Strategically, the teacher introduces provocative ideas or experiences, then questions, prods, challenges, coaxes, or keeps quiet. The teacher clarifies and instructs when necessary, but does so efficiently. Most important, the teacher keeps everyone engaged in a substantive and extended discussion around ideas that matter to the participants, allowing them to reach new levels of understanding.

Beyond the intuitive, holistic description provided in the preceding paragraphs, however, can we identify key elements of an instructional conversation and arrive at a more precise, analytical description? What are the constituent elements of instructional conversation? What must teachers know and do in order to implement, successfully and reliably, these types of learning interactions with their students? These are the questions that motivated the development of the IC scale reported herein.

Development of the IC Scale

Although previous efforts to develop responsive teaching models with native Hawaiian children (Tharp & Gallimore, 1989) were an important influence on the present work, to date there have been no explicit models for implementing ICs in classroom settings. An important resource, therefore, in our efforts to operationalize the concept of the IC, has been the extended collaborative work of one member of our research team (Claude Goldenberg) with various teachers in a local school district in classrooms populated largely with bilingual and/or limited-English-proficient students. (See Goldenberg & Gallimore, 1991a, 1991b, and Saunders, Goldenberg, & Hamann, 1992, for a detailed description and analysis of this work.) Through this and other ongoing work, various versions of an IC scale were developed, each designed to overcome limitations of previous versions. The final results of those efforts will be presented in the following section.

A Tool for Examining Responsive Teaching: The IC Scale

Description

The IC scale is comprised of three parts: (1) a detailed description of the individual elements of an instructional conversation (Appendix A), (2) a scoring sheet used for scoring and noting comments while viewing videotaped lessons (Appendix B), and (3) a summary score sheet (Appendix C). The 10 items on the scale are divided into conversational elements and instructional elements. Each item includes a general statement regarding the characteristics of the item and criteria (anchors) for scoring the item on a scale from 0 (low) to 2 (high). The scoring sheet contains a brief summary of the high and low criteria for each item and a space for noting relevant features of the lesson or discourse applicable to that item.[1] The summary sheet is used to list the ratings on all 10 dimensions and arrive at a total score for the lesson. It has room for comments for each item.

Elements of the Instructional Conversation

The following provides a brief description of the elements of an instructional conversation. Readers already familiar with the elements (as they are presented, for example, in Goldenberg, 1991, and Goldenberg, in press) will notice that the order in which the elements are presented here and some of the wording have been changed. The earlier version of the IC elements was developed in an instructional context and reflects the order and wording found to be most useful for teachers. The order and wording presented here reflect that found to be most useful by raters in rating the IC lessons.

Conversational Elements

1. **A challenging but non-threatening atmosphere.** The teacher creates a "zone of proximal development," where a challenging atmosphere is balanced by a positive affective climate. The teacher is more collaborator than evaluator and creates an atmosphere that challenges students and allows them to negotiate and construct the meaning of the text.

2. **Responsiveness to student contributions.** While having an initial plan and maintaining the focus and coherence of the discussion, the teacher is also responsive to students' statements and the opportunities they provide.

3. **Promotion of discussion.** Much of the discussion centers on questions and answers for which there might be more than one correct answer.

4. **Connected discourse.** The discussion is characterized by multiple, interactive, connected turns; succeeding utterances build upon and extend previous ones.

5. **General participation, including self-selected turns.** The teacher encourages general participation among students. The teacher does not hold exclusive right to determine who talks, and students are encouraged to volunteer or otherwise influence the selection of speaking turns.

6. **Thematic focus.** The teacher selects a theme or idea to serve as a starting point to focus the discussion and has a general plan for how the theme will unfold, including how to "chunk" the text to permit optimal exploration of the theme.

7. **Activation and use of background knowledge and relevant schemata.** The teacher either "hooks into" or provides students with pertinent background knowledge and relevant schemata necessary for understanding a text. Background knowledge and schemata are then woven into the discussion that follows.

8. **Direct teaching.** When necessary, the teacher provides direct teaching of a skill or concept.

9. **Promotion of more complex language and expression.** The teacher elicits more extended student contributions by using a variety of elicitation techniques, for example, invitations to expand ("Tell me more about____"), questions ("What do you mean by____?"), restatements ("In other words,____"), and pauses.

10. **Promotion of bases for statements or positions.** The teacher promotes students' use of text, pictures, and reasoning to support an argument or position. Without overwhelming students, the teacher probes for the bases of students' statements: "How do you know?" "What makes you think that?" "Show us where it says____."

Conventions for Using the IC Scale

The following points should be kept in mind when using the IC scale to rate classroom lessons:

- The IC scale is meant to be used to rate videotape records of classroom lessons. We do not recommend trying to rate lessons "on line" (as they are taking place), because important information may be lost. Moreover, without a videotape record, the data are not amenable to later more focused or intensive analysis.
- The recording equipment used should be of sufficient quality that all participants can be understood. Even though the scale does not require cumbersome transcription or other complex procedures, it is necessary to be able to understand the discourse of all participants.
- In using the IC rating scale, the unit of analysis is the lesson as a whole. Any single aspect of the lesson should be considered in the context of the larger lesson. In this spirit, it is recommended that the videotape be viewed twice. The first time, it should be viewed to get an overall characterization of the lesson. The second viewing should be used to assign scores.
- Raters should be familiar with the instructional material used in the lesson. It is desirable to have a copy of it available at the time of scoring to assist in following the interaction, deciphering unintelligible utterances, etc.
- As the IC scale indicates, there are three possible values for each element: 0 indicates that the element is missing from the lesson; 1 indicates that it is present, although to a limited degree; and 2 indicates that the element is clearly demonstrated and characteristic of the lesson.
- One of the most integral features of an IC is that the interaction is in the students' zone of proximal development. If the interaction does not represent learning just beyond what the students could achieve indepen-

dently, it cannot be considered an instructional conversation because true instruction will not have occurred. Accordingly, we recommend that the first element in the scale (a challenging but non-threatening atmosphere) be considered first when viewing, analyzing, and scoring a given lesson. This item essentially indicates whether the lesson as a whole is successful in creating a zone of proximal development. Although a lesson coded as 0 (low) on this item may have some individual elements characteristic of an instructional conversation, it is unlikely that the lesson itself represents an instructional conversation.

Preliminary Reliability and Validity Data

In examining the reliability and validity of the IC rating scale, we have been interested primarily in two questions.[2] First, is the overall rating of a lesson reliable with respect to separate raters' judgements? Second, does the scale accurately reflect perceived changes in lessons as they become less recitation-like and more IC-like? These questions were investigated in two separate reliability studies. The first was based on an analysis of 19 lessons and suggested the need for minor modifications to the IC scale. Following these changes, a second study based on 10 additional lessons was carried out.

Study One

Videotaped reading lessons were examined from four teachers who attempted to instantiate instructional conversations in their own classrooms over an entire school year. A sample of 19 of the total 45 available lessons was selected for reliability analysis: seven lessons (five in Spanish) from one teacher and four lessons each from the other three teachers. We hypothesized that lessons from later in the school year would be rated higher than those from earlier in the year.

Because one of the raters was not proficient in Spanish, she coded only the lessons in English. The second rater, proficient in Spanish and English, coded all 19. This resulted in a total of 14 English lessons coded by both raters. The correlation between the raters based on the 14 lessons was .83. When examined separately, reliability (intraclass correlation) for the instructional elements was .86; for the conversational elements it was .73.

The ability of the IC scale to detect hypothesized changes in instructional conversation lessons over time was also examined. Results showed that the reading comprehension lessons of these four teachers became more like ICs over the period of observation.

Although the IC scale was demonstrated to be acceptably reliable in terms of overall scores, the reliability ratings on the individual elements were found to be unacceptably low. Therefore, two changes were made. First, the

scoring sheet was modified to include descriptors for the endpoints only. It was found that raters could agree fairly well on a low or a high score but were less certain about the middle ground.

The second change was procedural. It was found that viewing the entire tape once before rating the lesson increased reliability. Therefore, raters were instructed to view the tape twice. The first viewing consisted of watching the entire lesson without rating, in order to get a broad picture of the "whole." Following this, the tape was viewed again, the "zone" item (element 1) was rated, then the remaining elements were coded.

Study Two

After the modifications were made, 10 lessons were coded by two research assistants. The reliability for the total score was .98. The reliabilities for the individual items also improved, ranging from .65 on item 5 (general participation) to .94 on item 1 (a challenging but non-threatening atmosphere).

At this point, the initial data suggest that the IC scale is reliable in terms of the overall rating of a lesson and exhibits moderate to high reliability on ratings of individual IC elements. In addition, the scale appears to reflect changes in lessons as they become more like instructional conversations. However, further work is required to examine more systematically the generalizability of the scale for areas other than reading comprehension (e.g., math).

Transcript Examples of Selected Aspects of Instructional Conversation Lessons

Although the IC rating scale is comprised of individual elements, it is designed to take into account an entire lesson as the unit of analysis. Therefore, it should be realized that the following transcript segments are taken out of context here for illustrative purposes only. The following examples provide brief glimpses of what would be considered low, medium, and high illustrations of instructional conversations. Each of the lessons was conducted in a first grade class with a majority of limited-English-proficient students. Each description and excerpt are followed by a short commentary of the instructional conversation elements and the corresponding total rating. In each segment, "T" refers to the teacher and "S" to the students.

Example 1

This segment is taken from the beginning of a reading lesson. The teacher is introducing the story, "The Little Red Hen."

Excerpt:

T - The title is "The Little Red Hen." Now remember again what I'm doing today. I'm going to read the story to you and then I'm going to ask you what happens first, second, third, fourth, last. *And,* when I ask you that, I'm going to write that on the board. And then we'll talk about it . . . . And if you know what the story says, you can say it with me, you can read with me, if you know what it says.

Comment:

It is clear that the teacher has a goal in this lesson: specifically, to focus on sequencing events in the narrative. However, although the lesson is goal-directed, the goal is not directly connected to comprehending the text. In addition, there is no evidence that the teacher is taking into account students' background knowledge and experiences in a way that would allow them to bring this existing knowledge to bear in understanding the story. Finally, although the excerpt is brief, it illustrates a pattern that is characteristic of the entire lesson. That is, the teacher dominates the conversation, and the lesson has few, if any, conversational features. This lesson was given an overall rating of 3 on the 20 point scale.

Example 2

This excerpt focuses on "Nate the Great," a story about a boy who plays the part of a neighborhood detective helping a friend locate a missing stamp. Before reading the story, the teacher starts a general discussion of what detectives are, what they do, etc. This segment is from the beginning of the lesson. One of the students has just volunteered that some criminals cover their faces when they are caught to avoid being seen.

Excerpt:

1. T - (reacting to previous comment about criminals) Yeah, some criminals *are* embarrassed when they get caught . . . .
2. S_1 - Like . . . (pauses while looking for the word)
3. S_2 - AMERICA'S MOST WANTED! (trying to guess the word)
4. S_3 - COPS! (trying to guess the word)
5. S_1 - Yeah, COPS!
   (At this point in the discussion, the students become a bit more animated.)
6. T - When the cops did what? (thinking that the students are referring to policemen in general)
7. All - It's TV.
8. T - Oh, it's a TV show? COPS?
9. S_4 - Yeah, it comes at 8:00 p.m.
10. S_5 - On Saturdays!

11. T - And is that like a real show, or . . . ?
12. All - Yeah . . . .
13. S_4 - Yeah, it's a real show, it's about cops, and they catch people.
14. T - Oh . . . .
15. S_1 - They block their face . . . . (referring to the fact that suspects' or victims' faces are sometimes edited out to protect their identities)
16. T - And that's where you've seen that they block the face . . . .
17. S_4 - Yeah, with little squares.
18. T - I've never seen that show. (Teacher then calls on a student who has his hand raised.)
19. S_5 - (changing the topic) Do detectives always go on nighttime?

Comment:

The teacher begins the lesson with a discussion about detectives, thus providing a thematic entry into the story as well as an opportunity to assess students' background knowledge. At the point in the discussion just presented, a potential "hook" into the story is uncovered. Specifically, the students obviously watch television and have seen the show "COPS," a real-life documentary-like show on the everyday activities of policemen. When this show is brought up (line 4), the students become animated, which gives the teacher the opportunity to connect this bit of apparently widely shared out-of-school experience to the understanding of the text. However, the opportunity is lost when the teacher calls on another student who then changes the topic by asking an unrelated question (lines 18 and 19). The teacher was not able to bring the discussion back to the original theme. This lesson was given a rating of 6 on the 20-point scale.

Example 3

"Talk," the focus of the third lesson, is an African folk tale about a young boy who is walking in the country and discovers that animals and objects are talking to him. In addition to the logical contradiction that animals and objects don't talk, an underlying theme of the tale is the boy's feelings about and reaction to this unusual experience. The teacher begins the lesson with a general discussion of the notion of *talk* and in the few moments before the following transcript has introduced the notion of *conversation.*

Excerpt:

1. T - Who else do you have conversations with?
2. S_2 - Your mom . . .
3. S_5 - With my dad . . .
4. S_4 - Or your sister . . .
5. S_6 - Or your brother . . .

6.	T -	Do you ever have a conversation with this? (spells D-O-G on the board)
7.	All-	(the class laughs)
8.	Ss-	Yeah.
9.	T -	How do you do it?
10.	S_2-	(unintelligible)
11.	T -	What does your dog say?
12.	S_3-	He just barks.
13.	S_2-	He goes "bow wow."
14.	T-	He never says anything?
15.	S_2-	I know what he says, he just barks.
16.	T-	Ah!
17.	S_5-	They just bite because they don't know how to talk.
18.	S_4-	If they talk, we don't know what they say.
19.	T-	Tell us more, why not?
20.	S_1-	I don't know.
21.	T-	(pointing to S1) Why don't we know what her dog says? (addressing S3) Why don't we know what her dog says?
22.	S_3-	Because it's not a person.
23.	T-	Ah! Who can talk? Who can talk?
24.	S_2-	People.
25.	S_1-	People.
26.	All-	People.
27.	T-	But . . . (looking for students to finish sentence)
28.	All-	Not dogs!
29.	S_6-	They *do* talk, they just bark.
30.	S_5-	They bark to the other dogs and they're talking to the other dogs.
31.	T-	If I want to understand a dog, I better be a . . . (rising intonation, looking for an answer from the class)
32.	All-	DOG!
33.	T-	But as a person, I can't understand them, can I?
34.	S_1-	You could talk to a cat, huh?
35.	T-	Oh! Oh! Tell me about that, what will happen?
36.	S_2-	He will go meow!
37.	S_5-	You could talk to a dog, but you will have to tell him to sit down first because you could listen to him, for you could talk to him but he won't answer you back.
38.	T-	Oh, you mean you have to get his attention first, get him quiet, get him to stop barking and stuff like that.
39.	S_2-	He barks when I bark!
40.	S_4-	But if he is not quiet, they read to him, they like to read the dogs a story. (unintelligible)
41.	T-	Oh! Oh, right! But you . . . But will they understand the story?

42.	All-	No!
43.	S_5-	But they could see the picture . . . .
44.	T-	That's true . . . .
45.	S_6-	I have a dog at home and we took him for a walk, and there used to be a big dog and then, I don't know what they were doing, he was on a chain, and they kept the door closed.
46.	T-	Did they communicate back and forth, did they communicate, you think?
47.	S_6-	Yes.
48.	T-	Did *you* understand what they were saying?
49.	S_1-	My cousin has a black dog, and the dog was running, and he ran . . . .
50.	T-	And your dad ran too?
51.	S_1-	Yeah.
52.	T-	Why?
53.	S_1-	I don't know, because the dog was starting to run . . . .
54.	T-	Oh, and was the dog starting to make noise too?
55.	S_1-	Uh huh.
56.	T-	Did the dog say to your dad, "I'm going to run away from you?"
57.	S_1-	No.
58.	S_3-	He can't talk.
59.	T-	Can a dog say, "I want some food"?
60.	All-	No!
61.	S_2-	In this commercial, dogs can talk and a man had a dog, and he said, "I love my (unintelligible)."
62.	T-	If a dog said some words to you, what would you do?
63.	S_3-	I don't know.
64.	T-	What would happen?
65.	S_2-	Talk back!
66.	T-	Could that happen?
67.	Ss-	No!
68.	T-	How would you feel if a dog talked to you?
69.	S_5-	Frightened.
70.	T-	Why would you feel frightened?
71.	S_5-	'Cause we never hear dogs or cats talk, we might get frightened.

Comment:

This transcript illustrates several features that characterize an instructional conversation. For example, the discussion is thematic, focused on the notion of talk, which is directly connected to the story to be read. The tone of the discourse is conversational, and the discourse itself is connected over several turns around a single thread. The constantly shifting IRE-type

questioning (initiation-reply-evaluation) is absent, although the teacher does ask direct questions to maintain the focus of discussion and redirect wandering comments. For example, at several points, the students begin to bring in background knowledge about dogs (lines 45, 49, and 61), yet there exists the potential for the discussion to wander in an unconnected fashion with no relevance to the story to be read. However, in lines 46, 54, and 56, the teacher refocuses students' experiences with dogs back to the central theme of the ability of animals to communicate, and in the final lines of the transcript expands the theme to include the nature of personal reactions to the experience of being spoken to by a dog.

In addition to the thematic focus, the participation of the students is relatively widespread, and the conversation is not teacher-dominated. Students participate on a self-selected basis. Moreover, the students feel comfortable to disagree over certain points. For example, although the teacher has suggested that animals cannot talk, one of the students suggests that dogs *do* talk, only in the form of barking (line 29). Importantly, the teacher is accepting and encouraging of alternative viewpoints.

At several points in the transcript, students are asked to explain the basis for their positions (lines 19, 21, 23) or to elaborate their explanations or understanding of the points under discussion (lines 64-70). Finally, at the end of the segment, the teacher broaches the subject of how students would feel if a dog spoke to them, thus providing a direct link to a central focus of the story to be read. This lesson was rated 15 on the 20-point scale.

Summary and Cautions

In sum, preliminary use of this scale has produced high agreement among observers, and the scale shows promise with respect to differentiating instructional conversations from more traditional recitation-type lessons. However, there are certain cautions and unresolved questions that need to be considered in using this scale.

First, the IC rating scale is composed of a series of distinct elements elaborated during efforts to create ICs in various classrooms. However, it must be kept in mind that the unit of analysis is the whole lesson and the interactional context in which the lesson activities are situated. It is more than the teacher and more than the students. It is more than instruction and more than conversation. In short, the whole is bigger than the sum of the parts. Therefore, undue focus should not be placed on the individual elements in isolation.

Secondly, the elements in the scale do not represent steps, recipes, scripts, edicts, or other top-down teacher-proof prescriptions. Rather, they are components that, as a unified whole, we think characterize and contribute to the types of activity settings called instructional conversations. We are well aware of the danger of trying to atomize something best dealt with at a

global, holistic level. But we are convinced from our early and cumulative efforts to create responsive teaching environments that more than global generalizations are needed as a guide to change.

Thirdly, the IC scale should not be seen as a finished product. There are many aspects that need elaboration and development. With respect to the continued development of this type of measure, in many cases there is a lack of a clear theoretical basis from which to proceed. As one example, in the current version of the scale, all elements are equally weighted, reflecting an assumption of equivalent importance. However, there is no theoretical or empirical foundation for this assumption, and it is not clear that all elements are equally important, nor whether some elements are more critical in affecting text comprehension, for example.

Another point that should be reiterated is that, in addition to its use as an important research tool, this scale is designed to be used by practitioners in collaborative professional development efforts. For example, teachers in long-term collaborative groups might use the concept of instructional conversations and the IC scale as a useful starting point in examining their own and their peers' teaching practices over time. Although it has a strong theoretical grounding, a deliberate effort was made to avoid complex technical procedures or lengthy transcription and elaborate coding that might limit the scale's use by teachers. Although this attempt to avoid unnecessary complexity might limit more intense analysis, it does not reflect the belief that such analysis is unimportant or should not be done. It is hoped that this scale might serve as the basis for just such analysis.

As a final point, it should be noted that the instructional conversation, as conceptualized here, is not "all or none," but rather is more realistically represented by a continuum. Stated another way, it might be expected that even a recitation lesson would exhibit some of the characteristics listed.

If future research confirms the usefulness of instructional conversations, additional work in this area might focus on the processes accompanying teacher change and on the effects of instructional conversations on low-achieving students. In addition, more elaborate analyses are needed in order to understand more fully the structure and dynamics of these special types of teacher-student interactions.

Notes

[1] Initial work suggested that raters were more reliable when only the endpoint criteria were included on the abbreviated scoring sheet, omitting the middle descriptor, and this is reflected in the scoring sheet.

[2] The following discussion is adapted from Rueda, Goldenberg, & Gallimore, 1991.

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Appendix A

Elements of the Instructional Conversation

Conversational Elements

1. A challenging but non-threatening atmosphere (ZOPD)

The teacher successfully creates a "zone of proximal development." That is, the teacher creates a challenging yet positive affective atmosphere where students feel comfortable to contribute and participate and where risky, speculative answers are acceptable. Although the teacher is the "more competent other," evaluation of student answers and talk is not the guiding feature of the discourse, and the goal of the lessons is not to evaluate the correctness of answers to "known-answer" questions. The teacher is more a collaborator in the discussion than an authoritative evaluator and creates an atmosphere that challenges and allows students to negotiate the meaning of the text and generate emerging hypotheses about the possible multiple meanings that may be constructed from the text.

Scoring Criteria

(0) The role of students appears to be confined to supplying answers for teacher evaluation, and the affective tone of the lessons is "school-like." Students rarely or never venture emerging or incomplete hypotheses about the text or come up with text-related ideas of their own in the absence of a direct cue or a teacher question. The tone or climate is primarily evaluative, and students appear to be reticent to venture answers that may not be "correct." There are no instances of meaning negotiation or alternative interpretations of the text.

(1) Although the tone of the lesson is mostly school-like and often evaluative, it is sufficiently non-threatening that students occasionally venture speculative answers, which the teacher rejects, doesn't use, or censures.

(2) The teacher promotes a non-threatening yet challenging atmosphere where students feel free to venture emerging or incomplete hypotheses, which the teacher uses to build upon the theme. The students appear to be comfortable being actively engaged in trying to understand the text and often come up with text-related ideas of their own in the absence of a direct cue or question. There are instances of meaning negotiation and possible alternative interpretations, which the teacher reinforces and uses to build upon the overall goal of the lesson.

2. Responsivity to student contributions

The teacher's response to student contributions to the discussion is based on a constantly updated understanding of students' background knowledge and current level of understanding with respect to the text. While having an initial plan and maintaining the focus and coherence of the discussion, the teacher is responsive to unanticipated opportunities provided by students. Moreover, the teacher's response to student statements recasts and expands upon the students' efforts without rejecting what they have accomplished on their own. Student contributions are used to extend the discussion or to explore new but relevant themes. The teacher must understand the text well and listen to students carefully to decide how best to take advantage of unanticipated opportunities they provide.

Scoring Criteria

(0) Students are rarely observed to make unanticipated or unsolicited contributions relevant to the discussion, or if they do, these are ignored or rejected by the teacher. Moreover, teacher questioning is scripted, inflexible, and mostly involves literal recall.

(1) Students occasionally make unanticipated or unsolicited contributions, which the teacher recognizes but does not build upon to further their understanding of the text. Although much of the questioning is scripted and inflexible, there is occasional evidence of questioning that is responsive to students.

(2) The teacher recognizes and builds upon students' contributions to further their understanding of the text in a way that is consistent with and related to the overall theme and goal of the lesson. Moreover, teacher questions are responsive to students' current level of understanding.

3. Promotion of discussion

While the teacher might pose some factual questions to establish a basic, literal comprehension of key elements of the text, much of the discussion will center on questions and answers that are less "black and white," that is, for which there might be more than one correct answer.

Scoring Criteria

(0) The teacher relies mainly on literal level recall and known-answer questions.

(1) The teacher's use of literal level recall questions is mixed with some discussion-generating questions.

(2) There is a predominance of discussion-generating questions around the theme of the story.

4. Connected discourse

The discussion is characterized by multiple, interactive, connected turns, where succeeding utterances by teachers and students build upon and extend previous ones. Although the discourse is like that found in everyday conversational settings, the discussion is guided by the teacher's thematic focus and curricular goals, which are evident throughout all phases of the lesson.

Scoring Criteria

(0) The discourse is characterized by unconnected questioning sequences or extended monologues, and there is an absence of talk on the same topic over several turns. The topics frequently shift after every question-answer sequence.

(1) Although there is some evidence of connected discourse, it is infrequent or is not well connected to the theme or overall goal of comprehending the text.

(2) The lesson is characterized by multiple, interactive, connected turns that build upon previous ones. Moreover, this topic cohesion is closely related to the theme or goal of understanding the text.

5. General participation, including self-selected turns

All students are encouraged to participate, and the teacher uses a variety of strategies to arrange for participation by all. At the same time, the teacher does not hold exclusive right to determine who talks, and students are encouraged to volunteer or otherwise influence the selection of speaking turns as is characteristic of natural conversational settings.

Scoring Criteria

(0) The discussion and interaction are characterized by teacher-controlled speaking turns and a predominance of teacher talk.

(1) There are occasional instances of broad participation in the discussion, but overall the teacher controls the speaking turns and participation or otherwise inhibits a more natural participatory structure.

(2) Speaking turns are relatively equal with constant turn-taking among partners. No individual dominates the conversation, and the broad participation is characterized by democratic or self-selected speaking turns.

Instructional Elements

6. Thematic focus

The teacher selects a theme or idea based on the text being used, to serve as a starting point for focusing the discussion. The theme or idea is appropriate for the text and worthwhile, and the teacher feels it will be meaningful for the students. The teacher has a general plan for how the theme will unfold and has decided on a strategy for "chunking" the reading of the text to permit optimal exploration of the theme.

Scoring Criteria

(0) The teacher appears not to have a clear goal in conducting the lesson, and there is no obvious theme that ties together the discussion and questions.

(1) Although the teacher has a goal or theme guiding the lesson, it is not clearly connected to comprehending the text, or it may be evident at one phase of the lesson but not throughout.

(2) The entire lesson is goal driven and thematic. The theme is relevant to the text and is used to tie together questions and discussion throughout.

7. Activation and use of background knowledge and relevant schemata

Before focusing on the text, the teacher investigates and tries to "hook into" student background knowledge pertinent to the development of story theme(s). The teacher activates relevant schemata in the students' minds to assist them in the comprehension of text. The teacher also assesses whether students have requisite background knowledge to comprehend the text. Relevant background knowledge and pertinent schemata are then woven into the text-based discussion that follows.

Scoring Criteria

(0) The teacher does not focus on students' prior knowledge or relevant schemata, but begins immediately with the text or other unrelated activity.

(1) The teacher begins to explore students' background knowledge, but does so randomly or does not discriminate which aspects will build upon the text or relevant theme. Alternatively, if background knowledge is activated, it is not brought to bear in comprehending the text in later phases of the lesson.

(2) The teacher makes a special effort to investigate and activate background knowledge as a "hook" into the story before beginning to read the text. Moreover, the teacher supplies relevant prior knowledge as necessary and helps tie the students' emerging understandings of the text to this prior knowledge throughout the lesson.

8. Direct teaching

When necessary, the teacher provides direct teaching of a skill or concept. This is done not with the intent of teaching decontextualized skills, but within the context of, and directly related to, understanding the larger lesson. Instead of fishing for a known-answer response or having students guess what the teacher is thinking, the teacher moves the discussion forward by providing information or direct teaching when needed. The teacher is also skilled at knowing when direct instruction is *not* needed.

Scoring Criteria

(0) The teacher provides instruction out of context and in an inflexible, predefined sequence unrelated to promoting understanding or does not provide such teaching when needed to move the lesson forward.
(1) The teacher provides teaching of a skill or concept where needed, but does so excessively, or the teaching is not related to promoting the larger goal or theme of the story. Alternatively, the teaching is sometimes, but not consistently, provided as needed.
(2) The teacher provides instruction in context and in the service of assisting understanding and does not provide it when it is not necessary.

9. Promoting more complex language and expression

The teacher stretches students' performance by promoting and eliciting more extended and complex language and expression. The teacher uses a variety of elicitation techniques, such as questions, restatements, pauses (increased "wait time"), and invitations to expand (e.g., "Tell me more about that"). Questions and other elicitation techniques are also used to model more complex language and expression. The teacher is efficient and strategic in his or her talk, saying enough to move the discussion along, but not so much as to inhibit student talk or dominate the discussion or veer from the overall goal of comprehending the text.

Scoring Criteria

(0) The lesson is characterized by brief and unconnected IRE sequences or a predominance of yes/no questions. Moreover, students are not challenged to elaborate on their understanding of the text, and the teacher is not observed to use modeling or other devices to promote more complete expression and language.
(1) The lesson is characterized by sporadic instances where the teacher attempts to elicit more complex thinking and language, but students are not consistently pushed to produce more complete language and expression.
(2) The lesson is characterized by the teacher's use of a variety of techniques to promote more complex thinking and language development. The teacher's talk is consistently designed to promote and elicit ever increasing levels of linguistic expression and more elaborate verbalization of current understanding of the text.

10. Promoting bases for statements, hypotheses, and conclusions

The teacher promotes students' use of text, pictures, and reasoning to support an argument, a position, or emerging hypotheses and conclusions. While speculative answers are acceptable, the teacher moves students toward basing answers, arguments, and positions on evidence, reasoning, and careful consideration of alternatives. The teacher questions students regarding the basis for their statements. Examples include "How do you know?", "What makes you think that?", and even "Why?".

Scoring Criteria

(0) The teacher routinely accepts answers as right or wrong only and/or does not give consideration to how the student arrived at an answer. Moreover, the teacher rarely or never challenges students to defend tentative responses.
(1) Students are occasionally but not regularly encouraged to explain or defend the basis for their contributions to the discussion.
(2) Students are systematically and regularly encouraged to explain and defend their statements, emerging hypotheses, and conclusions.

Appendix B

Scoring Sheet

IC Rating Scale

Tape: _____ **TOTAL SCORE:** _____

Rater: _____

Date: _____

1. Creating a Challenging but Non-threatening Atmosphere (ZOPD)

0 ——— 1 ——— 2

The climate of the lesson is primarily non-challenging (doesn't push understanding), unstimulating, or intimidating.

The climate of the lesson is primarily challenging (consistently pushes understanding), stimulating, and non-threatening.

2. Responsivity to Student Contributions

0 ——— 1 ——— 2

The teacher's talk is rarely or never responsive to students' initiations, contributions, or current level of understanding.

The teacher's talk is frequently or always responsive to students' initiations, contributions, or current level of understanding.

3. Promotion of Discussion

0 ——— 1 ——— 2

The teacher relies mainly on literal level recall and known-answer questions, and rarely or never uses thematic, discussion-generating questions.

The teacher rarely uses literal level recall and known-answer questions, but frequently uses thematic, discussion-generating questions.

4. Use of Connected Discourse

0 ——— 1 ——— 2

There is a complete or almost complete absence of connected discourse related to the theme of the story.

The lesson is always or almost always characterized by connected discourse related to the theme of the story.

5. General Participation

0 ——— 1 ——— 2

The discourse is teacher-controlled and participation is teacher-dominated.

The control of the discourse is shared between teacher and students, and participation is widespread.

6. Text-Related Thematic Focus

0 —— 1 —— 2

No or minimal evidence of a text-connected goal or theme.

Overwhelming evidence of a text-connected goal or theme.

7. Focus on Background Knowledge and Relevant Schemata

0 —— 1 —— 2

No or minimal attempts to assess, activate, supply, or make use of relevant background knowledge.

Consistent, systematic attempts to assess, activate, supply, or make use of background knowledge.

8. Direct Teaching

0 —— 1 —— 2

Direct teaching is provided out of the context of the story, is inflexible, excessive, or not given when needed.

Direct teaching is provided in the context of the story, is flexible, and given only as needed.

9. Promoting Complex Language and Expression

0 ——— 1 ——— 2

There are few or no instances in which the teacher either elicits or models elaboration of the language used in the lesson.

The teacher frequently and systematically elicits and/or models elaboration of the language used in the lesson.

10. Promoting Bases for Statements, Hypotheses, and Conclusions

0 ——— 1 ——— 2

The teacher rarely or never elicits the reasoning behind, or defense of, students' statements, hypotheses, and conclusions.

The teacher frequently elicits students' reasoning and defense of statements, hypotheses, and conclusions.

APPENDIX C

SUMMARY SCORE SHEET

Tape: _____ TOTAL SCORE: _____

Rater: _____

Date: _____

IC Element	Comments	Score
1. Challenging but Non-threatening Atmosphere (ZOPD)		
2. Responsivity to Student Contributions		
3. Promotion of Discussion		
4. Use of Connected Discourse		
5. General Participation		
6. Text-Related Thematic Focus		
7. Background Knowledge and Schemata		
8. Direct Teaching		
9. Promoting Complex Language/Expression		
10. Promoting Bases for Statements, Hypotheses		
	TOTAL	

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